ists, Box 540, Benjamin Franklin Station, Washington 4, D. C., 1950, p. 345, (2.22, 2.23, and 2.24).

No reports were given on sugars in baked products, milk solids and butterfat in bread, or moisture.

REPORT ON GELATIN, DESSERT PREPARATIONS, AND MIXES

By S. C. Rowe (Food and Drug Administration, Department of Health, Education, and Welfare, Washington 25, D. C.), *Referee*

Last year the General Referee recommended (1) that work on methods for sucrose and dextrose, **21.13, 21.14,** and **21.15,** be continued; and (2) that the first action methods for jelly strength, **21.6** and **21.12,** be made official. These recommendations were approved by Committee C.

No report was received this year from the Associate Referee. It is recommended* that final action on methods under **21.13, 21.14,** and **21.15** not be taken until further work is done to evaluate them.

REPORT ON STANDARDIZATION OF MICROCHEMICAL METHODS

By C. L. Ogg (Eastern Utilization Research Branch,† Philadelphia 18, Pennsylvania), *Referee*

This report gives the recommendations of the Associate Referee and Referee based on collaborative studies of micromethods of analysis for alkoxyl and acetyl groups, and for nitrogen by the Dumas method. The studies on methods for alkoxyl and acetyl groups were designed to determine which of the currently used micromethods gives more accurate and precise results and also to determine the effects of variations in apparatus and procedure on the results obtained by each method. The results of the study are being made available to the Committee on Standardization of Microchemical Apparatus which functions under the American Chemical Society's Analytical Division so that this committee can recommend specifications for the most promising apparatus. A tentative Dumas method, based on the results of last year's study of the method, was tested collaboratively, and in addition more information was obtained on the newer, more rapid modifications of the Dumas method.

From a statistical analysis of the data obtained in these studies, it is recommended—*

(1) That additional collaborative work be done to evaluate the methods for determining acetyl groups.

(2) That additional alkoxyl samples be submitted to the collaborators for analysis to determine whether or not the results on methyl and ethyl esters will be similar to those obtained on the methyl and ethyl ethers.

(3) That, if the results with the esters are in accord with the findings on the ethers, a procedure be written for the Clark alkoxyl method and submitted for collaborative study.

(4) That the tentative Dumas method be revised in an attempt to improve its inter-laboratory precision and that the revised method be tested collaboratively.

(5) That a rapid method such as, or similar to, the Shelberg or Zimmermann procedures be submitted for collaborative study.

(6) That work to develop a Kjeldahl procedure for the analysis of materials containing N-N and N-O groups be discontinued until the studies on the Dumas method show whether or not there is urgent need for such a method.

(7) That, since the Carius method for chlorine and bromine has been adopted, first action, further studies of the catalytic combustion method be discontinued until methods have been developed for the more common elements and groups for which no standard microchemical methods exist.

(8) That further collaborative work be done to develop a gravimetric method for sulfur because the present volumetric method cannot be used to analyze materials containing phosphorus.

REPORT ON MICROANALYTICAL DETERMINATION OF ACETYL AND ALKOXYL GROUPS

By A. Steyermark, *Associate Referee*, and Eleanor E. Loeschauer (Hoffmann–La Roche Inc., Nutley, N. J.)

Questionnaires sent to the collaborators of previous studies (5–7, 16–18) indicated that the majority wished next to study the acetyl and alkoxyl determinations. This coincided with the plans of the Committee for the Standardization of Microchemical Apparatus of the Division of Analytical Chemistry, American Chemical Society, which will eventually

* For report of Subcommittee C and action of the Association, see *This Journal*, 37, 70 (1954).

† One of the laboratories of the Bureau of Agricultural and Industrial Chemistry, Agricultural Research Service, U. S. Department of Agriculture.

* For report of Subcommittee C and action of the Association, see *This Journal*, 37, 73 (1954).